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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/599,041

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Stuart T. Linsky

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10/19/2004

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/599,041

Applicant(s)

LINSKY ET AL.

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,10,14-19,21 and 26-34 is/are rejected.
- 7) ☒ Claim(s) 3,4,9,11-13,20,22-25 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The disclosure is objected to because of the following informalities.

Attorney docket numbers are found on page 1 lines 8-9, 10, and 13 and page 27 lines 16-17.

Filing dates are absent on page 1 lines 10, 12, and 16.

Serial numbers are absent on page 1 lines 10, 13, and 16 and page number 27 line 17.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 16, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 lines 7-10, the phrase "at least one of a payload and frame type for at least one of a payload and frame

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to be transmitted, and payload data pointers to data in memory to be transmitted in the payload" is vague.

Regarding claim 16 lines 10-14, the phrase "at least one scheduling entry, the scheduling entry comprising a header field defining at least one payload and frame type for at least one of a payload and frame to be transmitted, and payload data pointers into the memory" is vague.

Regarding claim 26 lines 9-13, the phrase "at least one scheduling entry, a header field in the scheduling entry defining at least one of a payload and frame type for at least one of a payload and frame to be transmitted, and payload data pointers into the memory" is vague.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1, 2, 5-8, 10, 14-19, 21, and 26-34 rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi (US 6,597,669).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 16, and 26, Takahashi teaches a downlink beam frame scheduler (fig. 1, col. 3 lines 28-31).

Takahashi teaches a memory (fig. 1 box 108).

Takahashi teaches a schedule table (fig. 1 box 112, 110, col. 4 lines 18-20, 33-36).

Takahashi teaches a scheduling segment comprising at least one scheduling entry (cell, col. 4 lines 18-21), the scheduling entry comprising a header field (col. 4 lines 18-21), the scheduling entry comprising a header field defining at least one of payload (coding rate, col. 4 lines 22-24) and frame type

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(cell type, col. 4 lines 22-24) for at least one of a payload and frame to be transmitted, and payload data pointers to data in memory to be transmitted in the payload (table of pointers, col. 5 lines 45-48).

Regarding claims 16 and 26, in addition to the limitations previously addressed, Takahashi teaches a packet switch routing self addressed uplink data from an input port to an output port (fig. 1 box 104).

Takahashi teaches a memory (fig. 1 box 118, 116, col. 4 lines 58-60) coupled to the output port (fig. 1 box 116), the memory comprising storage for at least two downlink beam hop locations (beam area subclasses, col. 4 line 67 - col. 5 line 6, Table 1).

Regarding claim 2, Takahashi teaches the header field defines a payload type indicative of coding rate for the payload (coding rate, col. 4 lines 22-24).

Regarding claims 5, 21, and 30, the payload data pointers are comprise queue pointers (pointers, queuing parameters, col. 5 lines 45-48).

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Regarding claims 6 and 31, the queue pointers (expanded set of queuing parameters (expanded set of queuing parameters, col. 5 lines 45-48) are indicative of downlink beam hop location (beam area, col. 4 line 63 - col. 5 line 4, Table 1). Note, the beam area is one of the expanded set of queuing parameters used in the table of pointers.

Regarding claims 7 and 32, the queue pointers (expanded set of queuing parameters, col. 4 line col. 5 lines 45-48, col. 4 line 63 - col. 5 line 2) are indicative of priority (col. 4 line 63 - col. 5 line 2, Table 1). Note, priority is one of the expanded set of queuing parameters used in the table of pointers.

Regarding claims 8 and 33, the queue pointers (expanded set of queuing parameters (expanded set of queuing parameters, col. 4 line col. 5 lines 45-48, col. 4 line 63 - col. 5 line 2) are indicative of code rate (col. col. 4 line 63 - col. 5 line 3, Table 1).

Regarding claim 10, the memory comprises a plurality of scheduling segments (fig. 1 box 108, 110, 118).

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Regarding claims 14 and 17, the scheduling segment comprises a plurality of scheduling entries, each scheduling entry directing preparation of a subsequent downlink frame (Table 1, col.5 lines 18-32).

Regarding claims 15 and 19, the data are ATM cells (col. 3 line 67 - col. 4 line 2).

Regarding claims 18, 28, 29, one of the scheduling segments in an active scheduling segment, and the remaining segments are inactive scheduling segments (switch this cell to the proper output module, col. 5 lines 22-24). Note, in the passage, the switch fabric processes one cell at a time. Regarding claim 29, deactivating the active one and activating a different segment, as shown above, the switch fabric processes one cell at a time. Therefore, after the switch finishes processing one cell, it deactivates the current active cell and activates/processes a next cell.

Regarding claim 27, allocating a first downlink beam hop location queue and a second downlink beam hop location queue (col. 4 lines 53-57).

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Regarding claim 34, servicing a different queue when a scheduled queue indicated by a queue pointer is empty (Table 1). Note, given different levels of priority in Table 1, the system would process a cell from a lower priority queue if all the higher priority queues were empty.

Allowable Subject Matter

6. Claims 3, 4, 9, 11-13, 20, 22-25, 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 3 and 20, although Takahashi teaches the scheduling entry comprises a first payload scheduling entry for the payload in the frame (fig. 1 box 118, col. 4 lines 58-60), nothing in the reference teaches or fairly suggests scheduling table further comprises a second payload scheduling entry for a second payload in the frame. For support for a second payload in the frame see spec pg. 27 lines 1-14.

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Regarding claim 4, although Takahashi teaches the header field defines a first payload type for a first payload in the frame (col. 4 lines 18-24), nothing in the reference teaches or fairly suggests a second payload type field for a second payload in the frame.

Regarding claims 9, 25, and 35, although Takahashi teaches coding rates, nothing in the reference teaches or fairly suggests light and heavy coding rates.

Regarding claim 11, although Takahashi payload header, nothing in the reference teaches or fairly suggests a frame offset.

Regarding claims 12 and 13, although Takahashi payload header, nothing in the reference teaches or fairly suggests a gated frame type.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (571) 272-3165. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ronald Abelson
Examiner
Art Unit 2666



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10/18/09